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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/491,110	01/25/2000	Frank W. Liebenow	450.129US2	8106

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EXAMINER

ALPHONSE, FRITZ

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/491,110

Applicant(s)
Liebenow

Examiner
Fritz Alphonse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 19, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-51 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-38 is/are allowed.
- 6) ☒ Claim(s) 30, 31, 39-46, and 49-51 is/are rejected.
- 7) ☒ Claim(s) 47 and 48 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 39 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,078,312. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

claim 39 of the present application recites the patented limitations of claims 1-12 of U.S. Patent No. 6,078,312, except for the limitation "a plurality of uniquely coded positions", which has been included in the claims.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the elements of the present application since the addition of the limitation, as indicated above, would provide a much more specific subject matter. However, this would not have changed the process according to which functional differences are compensated for a simply structured pointing device that has high performance and reliability.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Pettypiece, Jr (U.S. Pat. No. 5,223,709).

As to claim 32, Pettypiece discloses a joystick pointing device comprising: a movable control stick (fig. 2); a first gradient (gray scales :50) having a plurality of positions uniquely varying in intensity level of a first color, the first gradient operatively coupled to the control stick (col.2, lines 14-54) such that movement of the control stick on a first axis causes corresponding movement of the first gradient (col.2, lines 55-68; col.3, lines 1-9); a fixed first sensor (i.e., detector 60) positioned over the first gradient to detect the intensity level of the position underneath the first sensor; a second gradient (gray scale: 52) having a plurality of positions uniquely varying in intensity level of a second color operatively coupled to the control stick such that movement of the control stick on a second axis causes corresponding movement of the second gradient; and, a fixed second sensor (70) positioned over the second gradient to detect the intensity level of the position underneath the second sensor (col.3, lines 34 through col. 4, line 2), and such that the intensity level detected by the first sensor and the intensity level detected by the second sensor relate to a unique position of the control

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stick and such control stick position information is communicated (note all gray scale area 50, 52 and 54 are uniquely different; the area between white and black comprise different shades of gray).

As to claim 33, Pettypiece discloses a joystick pointing device comprising: a fixed first and second light source positioned over the first and second gradients respectively to illuminate the position underneath the first and second sensor (col.3, lines 34-55).

5. Claims 30, 31, 40 and 41, 42, 46, 49, 51, are rejected under 35 U.S.C. 102(b) as being anticipated by Joyce (U.S. Pat. No. 4,686,329).

As to claims 30-31, Joyce (figs. 1-3) show a computerized system comprising: a computer (48) having at least a processor (40) and a memory (42); and, a mouse pointing device (10) positionable over a surface (col. 1, lines 57-66; col. 2, lines 64-66) having a plurality of uniquely coded positions arranged in a gradient substantially covering the surface (col. 3, lines 20-44), the device sensing the coding of the uniquely coded position underneath the mouse and conveying to the computer information relative to the uniquely coded position underneath the mouse (see abstract).

As to claims 40 and 51, the claims differ from claim 30 by the additional limitations "a first sensor disposed within the housing; a second sensor disposed within the housing; the first and second gradient substantially covering a surface". However, these limitations are clearly disclosed by Joyce (col. 1, lines 52-56; col. 3, lines 34-55).

As to claims 41-42, Joyce discloses first and second light source disposed within the housing to illuminate the position underneath the sensors (fig. 1 shows 2 light lenses 24 underneath the mouse

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22) disposed within the housing to illuminate the position underneath the sensor; and, wherein the light sources comprise a light-emitting diode 28 (col.3, lines 63-68).

As to claims 46 and 49, Joyce discloses a pointing device, wherein each gradient is a color gradient (note the tablet includes a unique black and white pattern of lines forming a gradient) such that the plurality of positions uniquely vary in intensity level of color; and wherein, each gradient is a gray-scale gradient such that the plurality of positions uniquely vary in shades of gray.

6. Claims 40 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Pettypiece.

As to claims 40 and 51, Pettypiece discloses a pointing device (figs. 1-3) comprising: a housing (10); a first sensor (60) disposed within the housing and positionable over a first gradient having a plurality of positions uniquely varying in intensity level, the first sensor detecting the intensity level of the position underneath the first sensor (col. 3, lines 34-55); and, a second sensor (70) disposed within the housing and positionable over a second gradient having a plurality of positions uniquely varying in intensity level, the second sensor detecting the intensity level of the position underneath the second sensor, whereby the intensity level detected by the first sensor and the intensity level detected by the second sensor relates to a unique position of the device and information relative to such position is communicated (col. 3, lines 55 through col. 4, line 22).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that

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the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joyce (U.S. Pat. No. 4,686,329).

As to claims 43-45, Joyce does not explicitly disclose a light source disposed within the housing to illuminate the position underneath the sensors and, wherein the first gradient is transposed over the second gradient and, wherein the position underneath the first sensor is substantially coincident to the position underneath the second sensor.

However, this is very obvious, it would have been obvious, to one having ordinary skill in the art, at the time of the invention, to use a light source to illuminate the position underneath the sensors with the first gradient transposed over the second gradient and, wherein the position underneath the first sensor is substantially coincident to the position underneath.

9. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Joyce in view of Pettypiece.

As to claim 50, Joyce does not teach about a pointing device, which is a joystick. However, this limitation is disclosed by Pettypiece (see figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art at time of the invention to improve upon the Spherical optical encoder system, as disclosed by Pettypiece. Doing so would provide a three axis mechanism operable to supply outputs about each of three mutually orthogonal axes when a member such as a hand controller is moved in three directions.

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Allowable Subject Matter

10. Claims 34-38 are allowed.
11. Claims 47-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments with respect to claims 30-31, 39-46, 49-51 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse whose telephone number is (703) 308-8534.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



F. Alphonse

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September 5, 2003



STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600